

Name: _____

Date: _____

**Grade 5
Mathematics Probe
Form B**

1. What symbol should replace in the number sentence below?

$$10 \quad 5 + 6 = 8$$

- A. +
- B. -
- C. ×
- D. ÷

2. By how much would 10, 217 be increased if the digit 0 were replaced by a digit 3?

3. Max bought 96 plants for his garden. He plans to put 15 plants in each row. How many complete rows of 15 can he plant?

_____ rows

4. What value of n makes the number sentence true?

$$5 \times 10 \times 2 = n \times 2 \times 10$$

- A. 2
- B. 5
- C. 10
- D. 100

5. The difference between 25 and 13 is 12. Mallory added a number to 25 and then added the **same** number to 13. What would be the difference between the two new numbers?

- A. More than 12
- B. Less than 12
- C. 12
- D. It depends on the number added to 25 and 13.

6. Christy has 30 new songs to load onto her MP3 player. If each song takes 12 seconds to upload, how many minutes will it take to upload her music?

_____ minutes

7. A package of raisins costs \$3.28 for 2 pounds. A package of peanuts costs \$3.36 for 3 pounds. What is the difference in cost per pound?

_____ cents

8. If two thirds of a cup of sugar is needed for a batch of muffins, how many cups of sugar will be needed for 4 batches?

9. What fraction of a cup is 2 fluid ounces?
(1 cup = 8 fluid ounces)

10. Write $\frac{15}{50}$ in lowest terms.

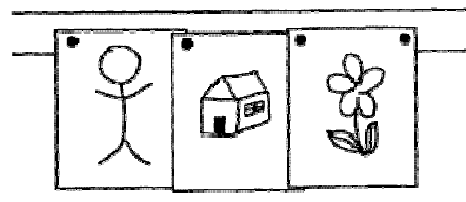
11. Students in Mrs. Sinclair’s class were asked to tell why 0.3 is greater than 0.12.

Which reason is best?

- A. “It isn’t, because 3 is smaller than 12.”
- B. “Because 30 is larger than 12.”
- C. “Because three tenths can’t be reduced and twelve hundredths can.”
- D. “Because 0.3 is like 3¢ and 0.12 is like 12¢”

12. Rosemary made 6 batches of muffins. There were 24 muffins in each batch. How many muffins did she make?

_____ muffins



13. Children’s pictures are to be hung in a line as shown above. Pictures that are hung next to each other share a tack. How many tacks are needed to hang 22 pictures in this way?

_____ tacks

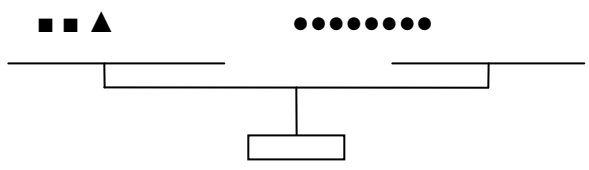
14. Robert is 10 and his sister is twice as old as he is. How old will his sister be when he is 15?

_____ years old

15. Sheila was collecting pop tabs for school. She collected 10 tabs on day 1. Each day after she collected twice as many tabs as she did the day before. How many tabs will she collect on day 5?

_____ pop tabs

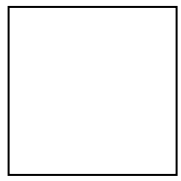
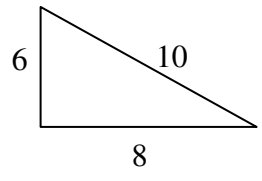
16.



The objects on the scale above make it balance exactly. If ▲ above balances ●●, then ■ balances which of the following?

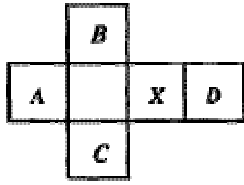
- A. ●
- B. ●●
- C. ●●●
- D. ●●●●

17. Circle the letter has perpendicular lines.



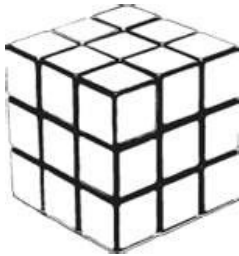
18. If both the square and the triangle above have the same perimeter, what is the length of each side of the square?

_____ units



19. The figure above is a net for a cube. If the net was cut out and folded into a cube, **which face would it be sitting on** if X were on top?

- A. A
- B. B
- C. C
- D. D



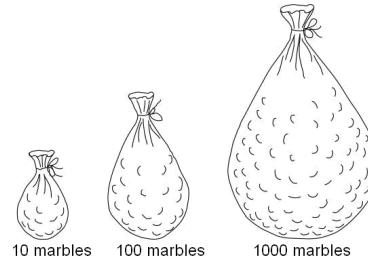
20. In the figure above, how many small cubes were put together to form the large cube?

- A. 3
- B. 9
- C. 18
- D. 27

21. Susan wants to buy 3 bottles of nail polish that cost \$1.79 each, including tax. If she has one-dollar bills and no coins, how many one-dollar bills does she need?

- A. 3
- B. 4
- C. 5
- D. 6

22. David went to watch remote control car races at 11:30 a.m. and came home at 3:00 p.m. How long was he gone?



23. Each bag above contains half red marbles and half blue marbles. Without looking, you are to pick a marble out of one of the bags. Which bag would give you the greatest chance of picking the red marble?

- A. Bag with 10 marbles
- B. Bag with 100 marbles
- C. Bag with 1000 marbles
- D. It makes no difference

24. There are 8 fifth graders and 12 sixth graders on the basketball team. Everyone's name is put in a hat and the captain is chosen by picking one name. What are the chances that the captain will be a fifth grader?

- A. 2 out of 5
- B. 1 out of 3
- C. 2 out of 3
- D. 2 out of 7

25. Based on the map below, about how many miles is it from Oakdale to Millton if you are traveling on the roads shown above?

